



CLINICAL PROCEDURE

Volume Based Tube Feeding (Adult ICU)

A. EFFECTIVE DATE :

September 9, 2020

B. PURPOSE :

To improve the delivery of enteral nutrition (EN) to patients at UCONN Health by implementing procedures consistent with 2016 ASPEN (American Society of Parenteral & Enteral Nutrition) and SCCM (Society of Critical Care Medicine) recommended guidelines; To outline a procedure for nursing to adjust tube feeding rate to account for interrupted feedings, thus improving the likelihood of meeting volume based feeding goals.

C. POLICY:

There are no policy statements associated with this procedure.

D. SCOPE :

UConn Health, John Dempsey Hospital, **Intensive Care Unit**

E. DEFINITIONS :

Volume based feeding (VBF) is a method of enteral nutrition provision where a volume per day (i.e. 1200 ml/day) is prescribed rather than rate per hour (i.e.60 ml/hr).

F. MATERIAL(S) NEEDED :

None

G. PROCEDURE :

1. Tube feed Initiation & Advancement - The RN will:

- a) Initiate and increase tube feeding as ordered until goal rate is met. (*i.e. A typical order may be to start at 20 mls/hr & increase by 10-20 mls every 4 hours to ordered goal rate*)
- b) Once goal rate is met and tolerated, ensure patient receives goal volume each day by using VBF & rate adjustment (*i.e. Goal is 1200 ml/day if goal rate is 50 ml/hr*)

2. VBF & Rate Adjustment - The RN will:

- a) Begin VBF by using Catch-Up Rate Chart (page 4) if tube feeds have been on hold for **≥1 hour**,
 - Goal is to have ordered volume infuse over a 24 hour period, starting at 12 am, midnight.
- b) Refer to special instructions in tube feed order for a rate adjustment range (i.e. 50-120 ml/hr)
 - Maximum hourly infusion rate =120 ml/hr for both small bowel and gastric feeding
 - Goal volume may not be achieved if tube feeds were held late in the day
- c) Reset to original goal rate at 12am, midnight daily
- d) Record all rate adjustments in I/O Flowsheet

e) Example:

- Vital AF 1.2 has started at 20 ml/hr and advanced by 20 ml every 4 hours until goal of 50 ml/hr which was met and achieved
- Goal per tube feed order: 1200 ml/day of Vital AF 1.2, 50-120 ml/hr
- Tube feed has been off from 7am until 2pm for a procedure
- Find 50 on the left side column "Goal ml/hr" on Catch-Rate Up chart and follow line over to 7 hours off
- Increase to Catch Up rate of 75 ml/hr until 12am, midnight
- Decrease back to goal rate of 50 ml/hr at 12am, midnight

3. Residuals: The RN will follow standard tube feeding procedure regarding residuals. Refer to Tube Feeding / Enteral Nutrition Policy.

4. Contraindications to VBF:

- a) Patients not yet at goal tube feed rate
- b) Patients who are not tolerating enteral nutrition
- c) Surgical patients requiring trophic feeding
- d) Patients who usually receive bolus feeding prior to admission

H. ATTACHMENTS :

[Catch-up Rate Chart](#)

I. REFERENCES :

1. McClave SA, Taylor BE, Martindale RG et al. Guidelines for the provision and assessment of nutrition support therapy in the adult critically ill patient: Society of Critical Care Medicine (SCCM) and American Society for Parenteral and Enteral Nutrition (A.S.P.E.N.). *JPEN J Parenter Enteral Nutr.* 2016; 40(2): 159-211.
2. Taylor B, Brody R, Denmark R, Southard R, Byham-Gray L. Improving Enteral Delivery Through the Adoption of the "Feed Early Enteral Diet Adequately for Maximum Effect (FEED ME)" Protocol in a Surgical Trauma ICU: A Quality Improvement Review. *ASPEN Nutrition in Clinical Practice.* 2014; 29(5): 639-648.

J. SEARCH WORDS :

Tube Feeding (s), Enteral Nutrition, Volume Based Feeding

K. ENFORCEMENT:

Violations of this policy or associated procedures may result in appropriate disciplinary measures in accordance with University By-Laws, General Rules of Conduct for All University Employees, applicable collective bargaining agreements, the University of Connecticut Student Code, other applicable University Policies, or as outlined in any procedures document related to this policy.

L. STAKEHOLDER APPROVALS :

On File

M. COMMITTEE APPROVALS :

1. Nursing Standards Committee
2. Critical Care Advisory Committee

N. FINAL APPROVAL :

- | | |
|--|---------------------------|
| 1. <u>Andrew Agwunobi, MD (Signed)</u>
Andrew Agwunobi, MD, MBA
UConn Health Chief Executive Officer | <u>11/03/2020</u>
Date |
| 2. <u>Anne D. Horbatuck (Signed)</u>
Anne D. Horbatuck, RN, BSN, MBA
Clinical Policy Committee Co-Chair | <u>10/30/2020</u>
Date |
| 3. <u>Scott Allen, MD (Signed)</u>
Scott Allen, MD
Clinical Policy Committee Co-Chair | <u>10/30/2020</u>
Date |
| 4. <u>Caryl Ryan (Signed)</u>
Caryl Ryan RN, MS, BSN
VP Quality and Patient Service & Chief Nursing Officer | <u>11/02/2020</u>
Date |

O. REVISION HISTORY :

Issued: 9/9/2020